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Masako Suehiro

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EXAMINER

CUTLER, ALBERT H

ART UNIT

PAPER NUMBER

2622

NOTIFICATION DATE

DELIVERY MODE

03/25/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/699,774	Applicant(s) SUEHIRO, MASAKO	
	Examiner ALBERT H. CUTLER	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,6,8 and 10 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is responsive to communication filed on December 9, 2009.

Response to Arguments

2. Applicant's arguments filed December 9, 2009 have been fully considered but they are not persuasive.

3. Applicant argues that claim 1, as amended requires a second communication mode for enabling the image sending apparatus to function as an external recording device for the external device and to be read and written by the external devices. The image recording machines in Hirose are not able to be read and written by the external devices.

4. The Examiner respectfully disagrees. Each of the machines, A and B have transmitters (305), and drive heads (306, 307, 308, 309) in accordance with the signals from the transmitter (305), column 4, lines 2-8. The Examiner interprets the driving of heads (306, 307, 308, 309) of machine B (i.e. the external device) in accordance with the signals from the transmitter (305) of machine B, which signals are received from machine A, to be the reading of the image sending apparatus by the external device. The Examiner interprets the driving of heads (306, 307, 308, 309) of machine A (i.e. the image sending apparatus) in accordance with the signals from the transmitter (305) of machine A, which signals are received from machine B, to be the writing of the image sending apparatus by the external device. Hirose et al. teaches that machine B has the same structure as machine A (column 6, lines 42-50), that the communication cable (104) permits bi-directional communication (column 3, lines 3-7), that the machines

Art Unit: 2622

have chromatic and monochromatic communication modes (column 3, lines 39-48), and that the transmitters (305) of machines A and B have similar structures (column 4, lines 1-5). Hirose et al. teaches that each machine has a remote mode for driving the heads of the other machine through the communication line (104), column 6, lines 42-50.

5. Applicant argues that, as can be seen from the claim language of claim 1, the first and second communication modes establishes a communication direction, i.e., from the image sending apparatus to the external device. Applicant respectfully submits that the teachings of Hirose are wholly insufficient to teach or suggest a first communication mode for sending an image capturing command to an external device and sending the image selected by the image selecting device to the external device, and a second communication mode for enabling the image sending apparatus to function as an external recording device for the external device and to be read and written by the external devices. In other words, the teachings of Hirose as noted above fail to teach at least a first and second communication mode establishing a communication direction, i.e., from the image sending apparatus to the external device. Further, even if the image recording machines "A" and "B" are identical machines which perform bi-directional communication, as the Examiner asserts, Hirose does not teach or suggest at least the first and second communication modes as claimed because the "recording mode" in Hirose does not define transferring direction of images.

6. The Examiner respectfully disagrees. Hirose et al. teaches that machine B has the same structure as machine A (column 6, lines 42-50), that the communication cable (104) permits bi-directional communication (column 3, lines 3-7), that the machines

Art Unit: 2622

have chromatic and monochromatic communication modes (column 3, lines 39-48), and that the transmitters (305) of machines A and B have similar structures (column 4, lines 1-5). Hirose et al. teaches that each machine has a remote mode for driving the heads of the other machine through the communication line (104), column 6, lines 42-50.

Each communication mode (i.e. chromatic and monochromatic) in Hirose is bi-directional as both machines have the same structure and the communication cable (104) permits bi-directional communication. The claims, as currently written, do not limit the transfer of images to a single direction in each mode, but rather simply define characteristics of each mode. Hirose et al. teaches these claimed characteristics, as discussed in the rejection below.

7. Applicant argues, with respect to claim 8, that as can be seen from the clear claim language, the apparatus itself determines the communication mode upon checking the transfer instruction of the image, and the communication mode is switched between the first/second communication modes upon the transfer instruction of the image. In contrast, in the system of Hirose, when a signal indicating "no ink" in machine "B" (a machine which records/prints images) is transferred to the machine "A", the mode of machine "A" is set to the monochrome mode by automatic or manual operation of key 240 by the user, and monochrome image data is sent from machine "A" to machine "B". However, in the invention of claim 8, a trigger of switching modes is a transfer instruction of the image. In Hirose, the trigger of switching modes is an occurrence of "no ink". As such, Applicant maintains that Hirose fails to teach or suggest "the mode switch control device controls the mode of the image sending apparatus based on

Art Unit: 2622

checking that there has been the transfer instruction of the image selected by an image selecting device from a transfer instruction device of the image sending apparatus."

8. The Examiner respectfully disagrees. The apparatus itself (i.e. the external device, image receiving apparatus, machine B) determines the communication mode upon checking the transfer instruction of the image (i.e. transmit/record instruction, step 79, column 8, lines 57-60), and the communication mode is switched from the first communication mode (i.e. monochromatic mode) to the second communication mode (i.e. chromatic mode) upon the transfer instruction of the image as the transfer instruction is received in step 79, the ink is checked in step 81, and the mode is switched to monochromatic (i.e. the first mode) in steps 92-96, column 9, lines 1-25. The claims, as currently written, do not require that there cannot be any intermediate steps in between the receiving of a transfer instruction and the switching of the mode. Although the mode is switched in response to the receiving of a transfer instruction and determining that there is no ink, it is still switched in response, at least partially, to the reception of a transfer instruction, and thus reads on claim 8.

9. Applicant argues, with respect to claim 8, that the apparatus of Hirose cannot achieve the advantages of Applicant's invention.

10. The Examiner respectfully disagrees. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). See MPEP § 2131. As every claim

Art Unit: 2622

element is either expressly or inherently described, in a single prior art reference, the question of whether of not Hirose achieves Applicant's alleged advantages is moot.

11. Therefore, the rejection is maintained by the Examiner.

Claim Objections

12. The objection previously made to claim 10 is hereby removed in view of Applicant's response.

13. Claim 1 is objected to because of the following informalities: Lack of clarity and precision.

14. Claim 1 recites "to be read and written by the external **devices**". Upon further examination, it appears that claim 1 should recite "to be read and written by the external **device**". Appropriate correction is required.

Claim Rejections - 35 USC § 102

15. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

16. Claims 8 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirose et al. (US 5,357,347).

17. The Examiner's response to Applicant's arguments, as outlined above, is hereby incorporated into the rejection of claims 8 and 10 by reference.

Consider claim 8, Hirose et al. teaches:

An image receiving apparatus ("Machine B", figure 1), comprising:

Art Unit: 2622

a communication device (bidirectional communication cable, 104, column 3, lines 4-7, transmitter, 305, column 3, line 67 through column 4, line 5) which has

a first communication mode (monochromatic color mode, column 3, lines 39-42) for, on receiving an image capturing command from an image sending apparatus ("Machine A", figure 1), capturing in the image receiving apparatus (Machine B) an image selected and sent by the image sending apparatus (The monochromatic color mode is a possible communication mode for capturing an image selected and sent via instruction of machine A, column 8, lines 27-53, figures 6-1 through 7.), and

has a second communication mode (chromatic color mode, column 3, lines 39-42) enabling the image receiving apparatus (Machine B) to send images to the image sending apparatus (Machine A) for storage therein (Machines A and B are identical machines which perform bi-directional communication, column 2, line 65 through column 3, line 14, figures 1 and 2. Both machines have a key (240) for switching to a chromatic color mode in which chromatic color images are transmitted, column 3, lines 39-42, column 8, lines 27-53.) and to read the images sent and stored in the image sending apparatus (Each of the machines, A and B have transmitters (305), and drive heads (306, 307, 308, 309) in accordance with the signals from the transmitter (305), column 4, lines 2-8. The Examiner interprets the driving of heads (306, 307, 308, 309) of machine B (i.e. the receiving apparatus) in accordance with the signals from the transmitter (305) of machine B, which signals are received from machine A, to be the reading of the image sending apparatus by the receiving apparatus. The Examiner interprets the driving of heads (306, 307, 308, 309) of machine A (i.e. the image sending

Art Unit: 2622

apparatus) in accordance with the signals from the transmitter (305) of machine A, which signals are received from machine B, to be the writing of the image sending apparatus by the receiving apparatus. Hirose et al. teaches that machine B has the same structure as machine A (column 6, lines 42-50), that the communication cable (104) permits bi-directional communication (column 3, lines 3-7), that the machines have chromatic and monochromatic communication modes (column 3, lines 39-48), and that the transmitters (305) of machines A and B have similar structures (column 4, lines 1-5). Hirose et al. teaches that each machine has a remote mode for driving the heads of the other machine through the communication line (104), column 6, lines 42-50.);

a recording device which records the image selected and sent by the image sending apparatus (Machine A) through the communication device (See step S21 of figure 5 and step S106 of figure 7, column 9, lines 20-23. When in a communication mode, a recording operation is performed in machine B.); and

a mode switch control device which sends an order to the image sending apparatus (Machine A) to control a switch between the first communication mode and the second communication mode (See steps S77, S79, S81 and S96, figure 6-1B, column 8, lines 54-66, column 9, lines 1-22. If Machine A is in the second communication mode (chromatic color mode, "yes", S77), and Machine B does not have color ink ("no", S81), then a command is sent from Machine B to Machine A to change the mode to black and white mode (i.e. monochromatic mode, S96).), wherein

on checking that there has been a transfer instruction received from the image sending apparatus (S79, figure 6-1B) through the communication device, the mode

Art Unit: 2622

switch control device determines whether or not the communication mode with the image sending apparatus is the first communication mode (S81, figure 6-1B), and sends a conversion command ordering change to the first communication mode if determined that a current communication mode of the image sending apparatus is not the first communication mode (S96, figure 6-1B), and the mode switch control device controls the mode of the image sending apparatus based on checking that there has been the transfer instruction of the image selected by an image selecting device from a transfer instruction device of the image sending apparatus (See steps S77, S79, S81 and S96, figure 6-1B, column 8, lines 54-66, column 9, lines 1-22. If Machine A is in the second communication mode (chromatic color mode, “yes”, S77), and Machine B does not have color ink (“no”, S81), then a command is sent from Machine B to Machine A to change the mode to black and white mode (i.e. monochromatic mode, S96). A transfer instruction is sent in step S79, and the mode switch is controlled in steps S81 and S96. The Examiner interprets start key (201) to be an image selecting device as it starts a sending operation, column 3, lines 15-16.).

Consider claim 10, and as applied to claim 8 above, Hirose et al. teaches:

An image sending apparatus (Machine A), comprising:

an image capturing device (image sensor, 301, figure 3) which captures an image (column 3, lines 59-63);

a first communication device (bidirectional communication cable, 104, column 3, lines 4-7, transmitter, 305, column 3, line 67 through column 4, line 5) which has

a first communication mode (monochromatic color mode, column 3, lines 39-42) for sending an image selected by the image sending apparatus to the image receiving apparatus according to claim 8 (The monochromatic color mode is a possible communication mode for capturing an image in Machine B, selected and sent via instruction of machine A, column 8, lines 27-53, figures 6-1 through 7. See claim 8 rationale.), and

a second communication mode (chromatic color mode, column 3, lines 39-42) for enabling the image sending apparatus to function as an external recording device for the image receiving apparatus (Machines A and B are identical machines which perform bi-directional communication, column 2, line 65 through column 3, line 14, figures 1 and 2. Both machines have a key (240) for switching to a chromatic color mode in which chromatic color images are transmitted, column 3, lines 39-42, column 8, lines 27-53.) and to be read and written by the image receiving apparatus (Each of the machines, A and B have transmitters (305), and drive heads (306, 307, 308, 309) in accordance with the signals from the transmitter (305), column 4, lines 2-8. The Examiner interprets the driving of heads (306, 307, 308, 309) of machine B (i.e. the external device) in accordance with the signals from the transmitter (305) of machine B, which signals are received from machine A, to be the reading of the image sending apparatus by the external device. The Examiner interprets the driving of heads (306, 307, 308, 309) of machine A (i.e. the image sending apparatus) in accordance with the signals from the transmitter (305) of machine A, which signals are received from machine B, to be the writing of the image sending apparatus by the external device. Hirose et al. teaches

Art Unit: 2622

that machine B has the same structure as machine A (column 6, lines 42-50), that the communication cable (104) permits bi-directional communication (column 3, lines 3-7), that the machines have chromatic and monochromatic communication modes (column 3, lines 39-48), and that the transmitters (305) of machines A and B have similar structures (column 4, lines 1-5). Hirose et al. teaches that each machine has a remote mode for driving the heads of the other machine through the communication line (104), column 6, lines 42-50.);

a transfer instruction device (start key, 201) which sends a first instruction to the image receiving apparatus for instructing the image receiving apparatus to receive an image sent from the image sending apparatus (A transfer instruction is sent in step S79, and the mode switch is controlled in steps S81 and S96. The Examiner interprets start key (201) to be an image selecting device as it starts a sending operation, column 3, lines 15-16.); and

an automatic mode switching device which automatically switches at least to the first communication mode from the second communication mode in the first communication device upon receipt of a second instruction from the image receiving apparatus ordering the image sending apparatus to switch to the first communication mode from the second communication mode (See steps S77, S79, S81 and S96, figure 6-1B, column 8, lines 54-66, column 9, lines 1-22. If Machine A is in the second communication mode (chromatic color mode, "yes", S77), and Machine B does not have color ink ("no", S81), then a command is sent from Machine B to Machine A to change the mode to black and white mode (i.e. monochromatic mode, S96).), wherein

Art Unit: 2622

the second instruction is sent from the image receiving apparatus when the first communication device sends the first instruction (A transfer instruction is sent in step S79, and the mode switch is controlled in steps S81 and S96 (i.e. when the first communication device sends the first instruction).).

Claim Rejections - 35 USC § 103

18. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

19. Claims 1-3, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirose et al. (US 5,357,347) in view of Parulski et al. (US 7,027,172).

20. The Examiner's response to Applicant's arguments, as outlined above, is hereby incorporated into the rejection of claims 1-3, 5 and 6 by reference.

Consider claim 1, Hirose et al. teaches:

An image sending and receiving system (figure 1), comprising:

an image sending apparatus (Machine A) which comprises:

an image capturing device (image sensor, 301, figure 3) which captures an image (column 3, lines 59-63);

Art Unit: 2622

a recording device (head driver, 304) which records the captured image on a recording medium ("such as a sheet", column 1, lines 13-16, column 4, lines 6-8);

a first communication device (bidirectional communication cable, 104, column 3, lines 4-7, transmitter, 305, column 3, line 67 through column 4, line 5) which has a first communication mode (monochromatic color mode, column 3, lines 39-42) for sending an image capturing command to an external device (Machine B) and sending the image selected to the external device (The monochromatic color mode is a possible communication mode for capturing an image in Machine B, selected and sent via instruction of machine A, column 8, lines 27-53, figures 6-1 through 7.), and

a second communication mode (chromatic color mode, column 3, lines 39-42) for enabling the image sending apparatus to function as an external recording device for the external device (Machines A and B are identical machines which perform bi-directional communication, column 2, line 65 through column 3, line 14, figures 1 and 2. Both machines have a key (240) for switching to a chromatic color mode in which chromatic color images are transmitted, column 3, lines 39-42, column 8, lines 27-53.) and to be read and written by the external device (Each of the machines, A and B have transmitters (305), and drive heads (306, 307, 308, 309) in accordance with the signals from the transmitter (305), column 4, lines 2-8. The Examiner interprets the driving of heads (306, 307, 308, 309) of machine B (i.e. the external device) in accordance with the signals from the transmitter (305) of machine B, which signals are received from machine A, to be the reading of the image sending apparatus by the external device. The Examiner interprets the driving of heads (306, 307, 308, 309) of machine A (i.e. the

Art Unit: 2622

image sending apparatus) in accordance with the signals from the transmitter (305) of machine A, which signals are received from machine B, to be the writing of the image sending apparatus by the external device. Hirose et al. teaches that machine B has the same structure as machine A (column 6, lines 42-50), that the communication cable (104) permits bi-directional communication (column 3, lines 3-7), that the machines have chromatic and monochromatic communication modes (column 3, lines 39-48), and that the transmitters (305) of machines A and B have similar structures (column 4, lines 1-5). Hirose et al. teaches that each machine has a remote mode for driving the heads of the other machine through the communication line (104), column 6, lines 42-50.);

Art Unit: 2622

a transfer instruction device (start key, 201) which outputs a transfer instruction for transferring the image selected to the external device through the first communication device (A transfer instruction is sent in step S79, and the mode switch is controlled in steps S81 and S96. The Examiner interprets start key (201) to be an image selecting device as it starts a sending operation, column 3, lines 15-16.); and

an automatic mode switching device which automatically switches between the first communication mode and the second communication mode in the first communication device upon receipt of an order from the external device (See steps S77, S79, S81 and S96, figure 6-1B, column 8, lines 54-66, column 9, lines 1-22. If Machine A is in the second communication mode (chromatic color mode, "yes", S77), and Machine B does not have color ink ("no", S81), then a command is sent from Machine B to Machine A to change the mode to black and white mode (i.e. monochromatic mode, S96).); and

the external device includes an image receiving apparatus (Machine B) which comprises:

a second communication device (bidirectional communication cable, 104, column 3, lines 4-7) which performs at least communication in the first communication mode with the image sending apparatus (Machines A and B are identical machines which perform bi-directional communication, column 2, line 65 through column 3, line 14, figures 1 and 2.);

a recording device (head driver, 304) which records the image received through the second communication device (See step S21 of figure 5 and step S106 of figure 7,

Art Unit: 2622

column 9, lines 20-23. When in a communication mode, a recording operation is performed in machine B.); and

a mode switch control device which orders the image sending apparatus to control a switch between the first communication mode and the second communication mode of the image sending apparatus (See steps S77, S79, S81 and S96, figure 6-1B, column 8, lines 54-66, column 9, lines 1-22. If Machine A is in the second communication mode (chromatic color mode, “yes”, S77), and Machine B does not have color ink (“no”, S81), then a command is sent from Machine B to Machine A to change the mode to black and white mode (i.e. monochromatic mode, S96).), wherein:

on checking that there has been the transfer instruction of the image from the transfer instruction device of the image sending apparatus (S79, figure 6-1B), the mode switch control device of the image receiving apparatus determines whether or not the communication mode with the image sending apparatus is the first communication mode (S81, figure 6-1B), and sends a conversion command (S96, figure 6-1B) ordering change to the first communication mode if determined that a current communication mode of the image sending apparatus is not the first communication mode (See steps S77, S79, S81 and S96, figure 6-1B, column 8, lines 54-66, column 9, lines 1-22. If Machine A is in the second communication mode (chromatic color mode, “yes”, S77), and Machine B does not have color ink (“no”, S81), then a command is sent from Machine B to Machine A to change the mode to black and white mode (i.e. monochromatic mode, S96). The transfer instruction is sent at step S79.); and

on receiving the conversion command from the image receiving apparatus, the automatic mode switching device of the image sending apparatus switches the communication mode of the first communication device to the first communication mode (The image sending apparatus (Machine A) changes to the black and white mode (i.e. monochromatic mode), column 9, lines 15-24.).

However, Hirose et al. does not explicitly teach an image selecting device which selects a desired image of images recorded on the recording medium.

Parulski et al. similarly teaches of a printer (figure 2) with an imager (camera, 300), and of performing remote printing (see Abstract).

However, Parulski et al. additionally teaches an image selecting device which selects a desired image of images recorded on the recording medium (Parulski et al. teaches that images stored on a memory card (i.e. recording medium, 330) are displayed on a display (432) for user selection for printing via controls (430, figure 2), column 6, lines 27-37.).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to have the image sending apparatus taught by Hirose et al. include an interface for selecting images off of a recording medium as taught by Parulski et al. as a way of combining prior art elements according to known methods to yield predictable results.

Consider claim 2, and as applied to claim 1 above, Hirose et al. further teaches:

the image sending apparatus further comprises a manual mode switching device (key, 240) which switches between the first communication mode and the second communication mode by manual operation (switches to the black and white mode, column 9, lines 12-14); and

the mode switching by the automatic mode switching device takes preference over the mode switching by the manual mode switching device (The mode is carried out automatically without the actuation of the switching device (240), column 9, lines 15-19.).

Consider claim 3, and as applied to claim 1 above, Hirose et al. further teaches:

the automatic mode switching device of the image sending apparatus switches the communication mode of the first communication device to the second communication mode in a case where an initial communication mode was the second communication mode and a current communication mode is the first communication mode and it is in a non-connected state after connecting to the external device (During subsequent image printing, the switch (240) is consulted to determine the communication mode (step S61, figure 6-1A), column 7, lines 58-61.).

Consider claim 5, and as applied to claim 1 above, Hirose et al. further teaches that the image sending apparatus is one of a copying machine (a copying operation is performed, column 3, lines 15-16).

Consider claim 6, and as applied to claim 1 above, Hirose et al. further teaches that the image receiving apparatus is one of a printer (images are recorded (i.e. printed) by Machine B, column 8, lines 54-66).

Allowable Subject Matter

21. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

22. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALBERT H. CUTLER whose telephone number is (571)270-1460. The examiner can normally be reached on Mon-Thu (9:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sinh Tran/
Supervisory Patent Examiner, Art
Unit 2622

AC